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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,539	04/22/2004	William Taylor	60027.0348US01/BS# 030294	7334

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EXAMINER	
SHIVERS, ASHLEY L	

ART UNIT	PAPER NUMBER
2419	

MAIL DATE	DELIVERY MODE
11/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/829,539	TAYLOR ET AL.	
	Examiner	Art Unit	
	ASHLEY L. SHIVERS	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *November 14, 2008 (RCE)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 14, 2008 has been entered.

Specification

2. The disclosure is objected to because of the following informalities:

Regarding page 12 of the specification line 12, replace --network management system 176— with --network management system 175--.

Regarding page 12 of the specification line 16, replace --network management module 175— with --network management module 176--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-5, 15-18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sibbitt et al. (**U.S. Patent No. 5,065,392**), hereinafter referred to as Sibbitt in view of Tartarelli et al. (**U.S. PGPub 2003/0086413**), hereinafter referred to as Tartarelli.

Regarding claim 1, Sibbitt teaches a method for provisioning logical circuits for intermittent use in a data network, the method comprising:

> receiving at least one customer order for routing data in the data network for a predetermined time period (**An end user at any node can log into the controller and send instructions as to the bandwidth desired between nodes and the exact time that such bandwidth will be required; See col. 2, lines 36-39**);

provisioning at least one logical circuit in the data network for routing the customer data during the predetermined time period (**The controller determines that the end user has authorization to use the requested bandwidth during the time of the requested period and then looks for channels of the communication facilities between the end points requested which will be idle during the prospective time period. Once the path is identified, then available bandwidth through the path must be selected and reserved. Once this is accomplished, the prospective routing is scheduled for use by the initiating end user during the requested time period; See col. 2, lines 40-46 and 49-53**);

adding the at least one logical circuit to a deletion batch (**The original request includes the disconnection time, therefore all connections that are scheduled to be disconnected at the same time will be in the same deletion batch; See Fig. 10, 1007 and Fig. 12**); and

disconnecting the at least one logical circuit at the end of the predetermined time period (**It would have been obvious to disconnect the circuit during the disconnection; See Fig. 10, 1007 and Fig. 12**).

While Sibbitt teaches of determining and reserving a bandwidth associated with the connection, Sibbitt fails to explicitly teach of specifying a threshold value associated with at least one of a CIR or Bc and configuring the logical circuit to discard a frame that exceeds the threshold.

Tartarelli teaches of provisioning the at least one logical circuit comprising specifying a threshold value (**maximum bandwidth; See [0020] lines 4-5**) associated with at least one of a committed information rate (**Committed Information Rate; See [0020] lines 3-4**) or a committed burst size and configuring the at least one logical circuit to discard a frame communicated via the at least one logical circuit in response to determining that the threshold value has been exceeded (**The ISP and the customer set up the maximum bandwidth for the data transmission. If the sending rate exceeds the CIR (Committed Information Rate, referred elsewhere also as assigned maximum bandwidth), packets are dropped, therefore it would have been obvious that the controller could have also determined the threshold when reserving the bandwidth as indicated in Sibbitt; See [0011] lines 1-5 and [0020] lines 3-8**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt to include specifying a threshold value associated with a CIR and configuring the circuit to discard packets that exceed the threshold taught by Tartarelli in order to prevent bandwidth over-utilization.

Regarding claim 2, Sibbitt further teaches the method of claim 1, wherein provisioning the at least one logical circuit comprises provisioning the at least one logical circuit prior to the start of the predetermined time period (**At the scheduled period of time, or slightly therebefore, the controller begins an assessment of the continued availability of the previously selected channels to insure that quality communications will be possible during the scheduled period; See col. 2, lines 54-57**).

Regarding claim 3, Sibbitt further teaches the method of claim 2, wherein provisioning the at least one logical circuit prior to the start of the predetermined time period comprises:

determining a maintenance window prior to the start of the predetermined time period (**The original request includes the connection time, which can be used as the maintenance window; See Fig. 10, 1006 and Fig. 12**); and

provisioning the at least one logical circuit during the maintenance window (**It would have been obvious to one of ordinary skill to provision the circuit during the time requested; See Fig. 10, 1006 and Fig. 12**).

Regarding claim 4, Sibbitt further teaches the method of claim 1, wherein disconnecting the at least one logical circuit at the end of the predetermined time period comprises disconnecting the at least one logical circuit following the end of the predetermined time period (**The original request includes the disconnection time, therefore it would have been obvious to disconnect the circuit during the disconnection; See Fig. 10, 1007 and Fig. 12**).

Regarding claim 5, Sibbitt teaches the method of claim 4, wherein disconnecting the at least one logical circuit following the end of the predetermined time period comprises:

determining a maintenance window following the end of the predetermined time period (**The original request includes the disconnection time, which can be used as the maintenance window; See Fig. 10, 1007 and Fig. 12**); and

disconnecting the at least one logical circuit during the maintenance window (**It would have been obvious to one of ordinary skill to disconnect the circuit during the time requested; See Fig. 10, 1007 and Fig. 12**).

Regarding claim 15, Sibbitt teaches a system for provisioning logical circuits for intermittent use in a data network, the system comprising:

at least one network device (**Digital cross-connect; See Fig. 1, 11**) to establish a communications path for at least one logical circuit in the data network (**When the time comes to set up that connection, the controller will wake up, send the commands to the individual cross-connects so that they will make the connections and effect the end-to- end circuit from one customer premise to another; See col. 4, lines 10-15**); and

a network management module (**network controller; See Fig. 1, 40**) to:

receive at least one customer order for routing data in the data network during a predetermined time period (**An end user at any node can log into the controller and send instructions as to the bandwidth desired between nodes and the exact time that such bandwidth will be required; See col. 2, lines 36-39**);

provision the at least one logical circuit for routing the customer data during the predetermined time period (**The controller determines that the end user has authorization to use the requested bandwidth during the time of the requested period and then looks for channels of the communication facilities between the end points requested which will be idle during the prospective time period. Once the path is identified, then available bandwidth through the path must be selected and reserved. Once this is accomplished, the prospective routing is scheduled for use by the initiating end user during the requested time period; See col. 2, lines 40-46 and 49-53**);

add the at least one logical circuit to a deletion batch (**The original request includes the disconnection time, therefore all connections that are scheduled to be disconnected at the same time will be in the same deletion batch; See Fig. 10, 1007 and Fig. 12**); and

disconnect the at least one logical circuit following the end of the predetermined time period (**It would have been obvious to disconnect the circuit during the disconnection; See Fig. 10, 1007 and Fig. 12**).

While Sibbitt teaches of determining and reserving a bandwidth associated with the connection, Sibbitt fails to explicitly teach of specifying a threshold value associated with at least one of a CIR or Bc and configuring the logical circuit to discard a frame that exceeds the threshold.

Tartarelli teaches of provisioning the at least one logical circuit comprising specifying a threshold value (**maximum bandwidth; See [0020] lines 4-5**) associated with at least one of a committed information rate (**Committed Information Rate; See [0020] lines 3-4**) or a committed burst size and configuring the at least one logical circuit to discard a frame communicated via the at least one logical circuit in response to determining that the threshold value has been exceeded (**The ISP and the customer set up the maximum bandwidth for the data transmission. If the sending rate exceeds the CIR (Committed Information Rate, referred elsewhere also as assigned maximum bandwidth), packets are dropped, therefore it would have been obvious that the controller could have also determined the threshold when reserving the bandwidth as indicated in Sibbitt; See [0011] lines 1-5 and [0020] lines 3-8**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt to include specifying a threshold value associated with a CIR and configuring the circuit to discard packets that exceed the threshold taught by Tartarelli in order to prevent bandwidth over-utilization.

Regarding claim 16, Sibbitt further teaches the system of claim 15, wherein the network management module, in provisioning the at least one logical circuit, is operative to provision the at least one logical circuit prior to the start of the predetermined time period (**At the scheduled period of time, or slightly therebefore, the controller begins an assessment of the continued availability of the previously selected channels to insure that quality communications will be possible during the scheduled period; See col. 2, lines 54-57**).

Regarding claim 17, Sibbitt further teaches the system of claim 16, wherein the network management module, in provisioning the at least one logical circuit prior to the start of the predetermined time period, is operative to:

determine a maintenance window prior to the start of the predetermined time period (**The original request includes the connection time, which can be used as the maintenance window; See Fig. 10, 1006 and Fig. 12**); and

provision the at least one logical circuit during the maintenance window (**It would have been obvious to one of ordinary skill to provision the circuit during the time requested; See Fig. 10, 1006 and Fig. 12**).

Regarding claim 18, Sibbitt further teaches the system of claim 15, wherein the network management module, in disconnecting the at least one logical circuit following the end of the predetermined time period, is operative to:

determine a maintenance window following the end of the predetermined time period (**The original request includes the disconnection time, which can be used as the maintenance window; See Fig. 10, 1007 and Fig. 12**); and

disconnect the at least one logical circuit during the maintenance window (**It would have been obvious to one of ordinary skill to disconnect the circuit during the time requested; See Fig. 10, 1007 and Fig. 12**).

Regarding claim 26, Sibbitt teaches a method for provisioning logical circuits for routing logical circuit data in a data network during a predetermined time period, the method comprising:

receiving at least one customer order for routing the logical data in the data network during the predetermined time period (**An end user at any node can log into the controller and send instructions as to the bandwidth desired between nodes and the exact time that such bandwidth will be required; See col. 2, lines 36-39**);

determining a maintenance window prior to the start of the predetermined time period (**The original request includes the connection time, which can be used as the maintenance window; See Fig. 10, 1006 and Fig. 12**);

provisioning the at least one logical circuit during the maintenance window (**The controller determines that the end user has authorization to use the requested bandwidth during the time of the requested period and then looks for channels of the communication facilities between the end points requested which will be idle during the prospective time period. Once the path is identified, then available bandwidth through the path must be selected and reserved. Once this is accomplished, the prospective routing is scheduled for use by the initiating end user during the requested time period; See col. 2, lines 40-46 and 49-53**);

determining a maintenance window following the end of the predetermined time period (**The original request includes the disconnection time, which can be used as the maintenance window; See Fig. 10, 1007 and Fig. 12**); and

disconnecting the at least one logical circuit during the maintenance window (**It would have been obvious to disconnect the circuit during the disconnection; See Fig. 10, 1007 and Fig. 12**).

While Sibbitt teaches of determining and reserving a bandwidth associated with the connection, Sibbitt fails to explicitly teach of specifying a threshold value associated with at least one of a CIR or Bc and configuring the logical circuit to discard a frame that exceeds the threshold.

Tartarelli teaches of provisioning the at least one logical circuit comprising specifying a threshold value (**maximum bandwidth; See [0020] lines 4-5**) associated with at least one of a committed information rate (**Committed Information Rate; See [0020] lines 3-4**) or a committed burst size and configuring the at least one logical circuit to discard a frame communicated via the at least one logical circuit in response to determining that the threshold value has been exceeded (**The ISP and the customer set up the maximum bandwidth for the data transmission. If the sending rate exceeds the CIR (Committed Information Rate, referred elsewhere also as assigned maximum bandwidth), packets are dropped, therefore it would have been obvious that the controller could have also determined the threshold when reserving the bandwidth as indicated in Sibbitt; See [0011] lines 1-5 and [0020] lines 3-8**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt to include specifying a threshold value associated with a CIR and configuring the circuit to discard packets that exceed the threshold taught by Tartarelli in order to prevent bandwidth over-utilization.

5. Claims 6-7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sibbitt in view of Tartarelli in further view of Hollman et al. (**U.S. Patent No. 7,146,000**), hereinafter referred to as Hollman.

Regarding claim 6, while Sibbitt teaches of the disk that contains the data description of the network controlled by the controller (**See col. 4, lines 49-51**), Sibbitt fails to teach of generating trap data. Sibbitt in view of Tartarelli further fails to teach of generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics.

Hollman teaches generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics for the at least one logical circuit (**The routing engine determines the available capacity between the source and destination, which is equivalent to the disk of Sibbitt. Service type and bandwidth information dictate which specific routing policy rules to use. The routing process then builds a capacity graph including only the filtered set of capacity links between the source and destination. It would have been obvious that the capacity graph could include the utilization statistics for the circuit connection and would be obtained during the provisioning in the predetermined time period and be maintained as part of the status information indicated by Sibbitt; See Fig. 10, 1008; col. 1, lines 66-67 and col. 2 lines 1-3**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Tartarelli to include generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics taught by Hollman in order to constantly manage the bandwidth.

Regarding claim 7, Sibbitt in view of Tartarelli still fails to teach of the utilization statistics including the percent utilization of the circuit during the predetermined time period.

Hollman teaches of the utilization statistics comprising the percent utilization of the at least one logical circuit during the predetermined time period (**It would have been obvious that the capacity graph could include the percent of the utilization for the circuit connection; See col. 1, lines 66-67 and col. 2 lines 1-3**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Sibbitt in view of Tartarelli to include the utilization statistics comprising percent utilization taught by Hollman in order to constantly manage the bandwidth.

Regarding claim 19, Sibbitt teaches the system of claim 15, further comprising a logical element module (**a disk which includes the data description of the network; See Fig. 1, 43 and col. 4, lines 49-50**), in communication with the at least one network device and the network management module.

Sibbitt in view of Tartarelli fails to teach of the module receiving trap data generated by the network device.

Hollman teaches of a logical element module (**routing engine which is equivalent to the disk of Sibbitt as this is relied upon to obtain the capacity and availability which is inclusive of a data description of the network; See col. 5, lines 40-43**) to receive trap data generated by the at least one network device, wherein the trap data comprises a percent utilization of the at least one logical circuit during the predetermined time period (**It would have been obvious that the capacity graph could include the percent of the utilization for the circuit connection; See col. 1, lines 66-67 and col. 2 lines 1-3**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Sibbitt in view of Tartarelli to include a logical element module that receives trap data comprising a percent utilization taught by Hollman in order to constantly manage bandwidth.

6. Claims 8-11, 13-14 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sibbitt in view of Tartarelli in further view of Chiu et al. (**U.S. Patent No. 6,597,689**), hereinafter referred to as Chiu.

Regarding claims 8 and 20, Sibbitt in view of Tartarelli fails to teach the method/system of claims 1 and 15, respectively, wherein the customer order comprises a quality of service parameter for the logical circuit.

Chiu teaches of provisioning the quality of service requested (**Quality of service could be implemented to "fairly" prioritize the various data received; See col. 5, lines 7-10**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method/system of Sibbitt in view of Tartarelli to include quality of service parameters taught by Chiu in order to maintain an acceptable level of service for data transmission.

Regarding claims 9 and 21, Sibbitt in view of Tartarelli fails to teach the method/system of claims 8 and 20, wherein the quality of service parameter comprises at least one of an unspecified bit rate; a variable bit rate; and a committed bit rate.

Chiu teaches of various quality of service parameters (**The service class may include CBR, rt-VBR, nrt-VBR, ABR or UBR; See col. 5, lines 15-19**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method/system of Sibbitt in view of Tartarelli to include quality of service parameters taught by Chiu in order to maintain an acceptable level of service for data transmission.

Regarding claims 10-11 and 22-23, Sibbitt in view of Tartarelli fails to teach the method/system of claims 1 and 15, wherein the at least one logical circuit is a permanent virtual circuit or switched virtual circuit.

Chiu teaches of the circuit being a PVC (**Two types of virtual connections are PVCs and SVCs**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method/system of Sibbitt in view of Tartarelli to include the circuits being PVCs or SVCs taught by Chiu in order to reduce the amount of resources being used.

Regarding claims 13 and 24, Sibbitt in view of Tartarelli fails to teach the method/system of claims 1 and 15, wherein the data network is a frame relay network.

Chiu teaches of a frame relay network (**Typical applications include frame relay interworking; See col. 5 lines 38-39**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method/system of Sibbitt in view of Tartarelli to include the network being frame relay taught by Chiu in order to emphasize a type of network being used.

Regarding claims 14 and 25, Sibbitt in view of Tartarelli fails to teach the method/system of claims 1 and 15, wherein the data network is an asynchronous transfer mode (ATM) network.

Chiu teaches of an ATM network (**Currently, the telecommunications infrastructure comprises network node such as ATM switches, therefore the network would have to be ATM; See col. 1, lines 30-32**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method/system of Sibbitt in view of Tartarelli to include the network being an ATM network taught by Chiu in order to provide a particular type of network being used.

Conclusion

7. Any response to this action should be **faxed** to (571) 273-8300 or **mailed** to:

Commissioner of Patents,
P.O. Box 1450
Alexandria, VA 22313-1450

Hand delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHLEY L. SHIVERS whose telephone number is (571) 270-3523. The examiner can normally be reached on Monday-Thursday 8:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ashley L Shivers/
Examiner, Art Unit 2419
11/20/2008

/Chirag G Shah/
Supervisory Patent Examiner, Art Unit 2419